

**WHAT IS CLAIMED IS:**

1. A computer system, comprising:

a system bus;

5 a system configuration register for storing first endian information of the computer system;

at least one peripheral device having a base address register for storing second endian information; and

10 a host controller connected between the system bus and the at least one peripheral device, for comparing the first endian information with the second endian information, for byte-swapping data of the at least one peripheral device if the first endian information and the second endian information are different, and for transmitting the data of the at least one peripheral device to the system bus.

15 2. The computer system of claim 1, wherein the second endian information is stored in the base address register as one bit.

20 3. The computer system of claim 1, wherein the at least one peripheral device comprises:

a controller for controlling operation of the at least one peripheral device;

a memory device for storing data of the at least one peripheral device;

a memory controller for controlling the memory device; and  
a target chip having address information of the at least one peripheral  
device.

5           4.       The computer system of claim 3, wherein the target chip is  
used for building the base address register.

          5.       The computer system of claim 1, further comprising a main  
controller connected to the system bus and for controlling an operation of the  
10       computer system according to a value of the system configuration register.

          6.       A method of data transmission of a computer system,  
comprising:

              reading first endian information of at least one peripheral device;  
15           determining whether second endian information of the computer  
system is identical with the first endian information of the at least one  
peripheral device;

              byte-swapping data of the at least one peripheral device when the  
second endian information is different from the first endian information, and  
20           transmitting byte-swapped data to a system bus of the computer system; and  
              transmitting the data of the at least one peripheral device to the system  
bus when the second endian information is identical to the first endian  
information.

7. The method of claim 6, wherein the first endian information of the at least one peripheral device is stored in a base address register.

5 8. The method of claim 6, wherein the second endian information is stored in a system configuration register.

9. A computer system, comprising:

a system bus;

10 a system configuration register for storing first endian information of the computer system;

at least one peripheral device for storing second endian information in an address register; and

15 a host controller for comparing the first endian information with the second endian information.

10. The computer system of claim 9, wherein the host controller byte-swaps data of the at least one peripheral device if the first endian information and the second endian information are different.

20 11. The computer system of claim 9, wherein the host controller transmits data of the at least one peripheral device to the system bus.

12. The computer system of claim 9, wherein the host controller is operatively coupled to the system bus and the at least one peripheral device.

13. A method of data transmission of a computer system,  
5 comprising:

reading first endian information of at least one peripheral device;

determining whether second endian information of the computer system is identical with the first endian information of the at least one peripheral device; and

10 byte-swapping data of the at least one peripheral device when the second endian information is different from the first endian information.

14. The method of claim 13, further comprising:

transmitting byte-swapped data of the at least one peripheral device  
15 to a system bus of the computer system.

15. The method of claim 13, further comprising:

transmitting the data of the at least one peripheral device to a system bus of the computer system when the second endian information of is identical with  
20 the first endian information.

16. A method of data review of a computer system, comprising:

reading first endian information of at least one peripheral device; and

determining whether second endian information of the computer system is identical with the first endian information of the at least one peripheral device.